DOCUMENT RESUME

ED 458 277 TM 033 441

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TITLE An Empirically-Based Classification System for Teaching Performance Incentives.
PUB DATE 2001-10-00
NOTE 32p.; Paper presented at the Annual Meeting of the Mid-Western Educational Research Association (Chicago, IL, October 24-27, 2001).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150) -- Tests/Questionnaires (160)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Classification; Elementary Secondary Education; *Incentives; Models; Motivation; *Teachers
IDENTIFIERS Exploratory Factor Analysis

ABSTRACT

This study attempted to expand the dichotomous classification scheme typically used by researchers to describe teaching incentives and to offer administrators and teachers an "alternative" framework within which to develop incentive systems. This study is built on a previous one, but used a much larger sample (n=969). Elementary, middle, and high school teachers were asked to rate 10 commonly instituted teaching incentives with respect to the level of motivation offered by each. An exploratory factor analytic approach was used to determine the resulting factor structure underlying the teachers' ratings. As in the previous study, the analysis resulted in a four-factor model, although the structure and conceptual labels changed slightly. The model is discussed as an alternative to the dichotomous classification scheme. The survey is attached. (Contains 1 figure, 2 tables, and 23 references.) (SLD)

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ED 458 277

AN EMPIRICALLY-BASED CLASSIFICATION SYSTEM FOR TEACHING PERFORMANCE INCENTIVES

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Paper presented at the annual meeting of the

Mid-Western Educational Research Association, Chicago, IL (Oct. 24-27, 2001)

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Abstract

This study attempted to expand the dichotomous classification scheme, typically used by researchers to describe teaching incentives, and offer administrators and teachers an alternative "framework" within which to develop incentive systems. This study builds upon a previous one, but utilized a much larger sample (n = 969). Elementary, middle, and high school teachers were asked to rate ten commonly instituted teaching incentives with respect to the level of motivation offered by each. A exploratory factor analytic approach was used to determine the resulting factor structure which underlied the teachers' ratings. Similar to the results of the previous study, the analysis resulted in a four-factor model—although the structure and conceptual labels changed slightly—and is discussed as an alternative to the dichotomous classification scheme.

An Empirically-Based Classification System for Teaching Performance Incentives

Introduction

Generally speaking, a significant number of teachers are dissatisfied with the circumstances associated with their work, and have been for some time. Previous studies by the National Education Association (Sweeney, 1981) and Mertler (1992) revealed that approximately 25% of the teachers responding to surveys expressed dissatisfaction with their current jobs. Furthermore, 34% of the teachers in the study by Mertler (1992) reported that, if given the opportunity to choose a career again, they would not choose to enter the teaching profession. In a national survey of 1000 inservice teachers, 67 percent responded that they know teachers whom they believe are incompetent and should be fired. When asked to specify the number of teachers who should be fired, the average response was three (Turner, 1986). These findings and additional research seem to indicate that there exists a motivation problem in the teaching profession. It is likely that many of these teachers are not incapable of performing well. It may be more likely that many are *unwilling* to perform well; i.e., they are unmotivated.

Competent teaching professionals are being lost to a variety of other career fields. In addition, many teachers who have remained in the classroom have become apathetic

toward the work they are charged to perform. Unfortunately, the individuals most effected by this crisis are their students. These students are being deprived of the opportunity to learn from a high proportion of these teachers who have the potential to be competent and successful. A critical problem facing the teaching profession today is a lack of career incentives sufficient to retain the most talented teachers (Johns, 1988). Additionally, the status of the profession could be enhanced by the implementation of job incentive and reward systems. This would make teaching a more attractive profession (Oliver et al., 1988).

The literature has typically, and with little variation, categorized incentives of teaching performance into a simple dichotomy – intrinsic and extrinsic rewards. This study builds on a previously conducted pilot study and is an attempt to expand this dichotomous classification scheme and offer administrators and teachers an alternative "framework" within which to develop incentive systems.

Background

The task of developing a system of professional incentives for teachers presents quite a challenge. Creating a plan that is acceptable to teachers, administrators, and to the community *and* that improves teaching in the classroom is difficult (Palaich & Flannelly, 1984). In a large-scale investigation into teacher satisfaction, Dinham and Scott's (1997) results supported those of previous studies (Martinez-Pons, 1990; Fox, 1986; Ellis, 1984; Palaich & Flannelly, 1984; Lortie, 1975; Chapman, 1983; Galloway et al., 1985) which concluded that teachers are most satisfied by matters intrinsic to the role of

teaching, and most dissatisfied by those extrinsic to teaching. Ozcan (1996), following his review of literature, stated that "It can be safely stated that intrinsic rewards are important to teachers and the opportunities to earn intrinsic rewards motivate them. ... the greater the opportunities to earn intrinsic rewards, the greater will be teacher motivation" (p. 28). However, the intrinsic rewards of teaching have been on the decline (Oliver et al., 1988).

As a variation of this dichotomous classification scheme, Lortie (1975) identified three forms of rewards received by teachers. "Ancillary" rewards are those which attract individuals to the profession, but have little affect on the daily classroom performance (e.g., summer vacation). "Extrinsic" rewards are those tied to the organization and independent of the individual (e.g., salary and fringe benefits). "Intrinsic" rewards consist of those that are received internally. Although structured differently, Dinham and Scott (2000; 1997) also identified a third category of incentives. This third category—school-based factors—consists of elements such as school leadership, school climate, and school infrastructure. Lumsden (1998) has stated that these types of factors can certainly affect teacher morale.

Although teachers can be motivated by all three types of rewards, many incentive systems operate under the false assumption that teachers can be motivated *primarily* by extrinsic rewards (Johnson, 1986). Employees have two levels of needs and both motivation factors (i.e., those associated with the work itself that allow an individual to achieve psychological growth) and hygiene factors (i.e., those associated with the work environment that an individual pursues in order to avoid unpleasantness

or prevent job dissatisfaction) have the capability to meet those needs (Frataccia & Hennington, 1982). However, only motivation factors (analogous to intrinsic rewards) provide the motivating force which may lead to improved performance (Ellis, 1984; Herzberg, Mausner, & Snyderman, 1959). Most extrinsically-oriented incentive systems are unable to fulfill even the fourth level of Maslow's hierarchy (needs that address esteem of others and self-respect). Incentive systems should be developed and implemented in order to meet teachers' higher order needs, such as recognition and praise (Fox, 1986; Oliver et al., 1988).

In his extensive review of literature on teacher motivation, Ozcan (1996) argued that in modern society, the importance of extrinsic rewards should not be overlooked. He continues by stating that teachers do not leave the profession due to a lack of intrinsic rewards, but rather because of the lack of satisfactory extrinsic ones. However, he also cites studies spanning more than 20 years in which teachers consistently stated that economically-based rewards are not important to them. Teachers throughout these studies revealed that they receive the greatest amount of gratification when they feel that they have influenced their students.

Additionally, Ozcan (1996) acknowledged that there are no "pure" categories in which to classify professional rewards, and that the extrinsic/intrinsic classification scheme is used simply to facilitate analysis and discussion. As a catalyst behind the study at hand, it was the contention of the researcher that the terms "intrinsic" and "extrinsic" possess innate positive and negative connotations, respectively. That is, intrinsic rewards are realized in the form of *internal satisfaction* as a result of performing

the work itself; i.e., they are "good." On the other hand, extrinsic rewards are those realized by receiving something *tangible and substantial* for your efforts; i.e., they are "bad." Therefore, it was the goal of this research study to arrive at an *empirically-based* classification system for teaching performance incentives.

Purpose of the Study

Building upon a previously conducted pilot study (Mertler, 2000), this study was an attempt to determine—and potentially *refine*—the underlying factors or constructs which might account for the main sources of variability in 10 observable, measurable variables taken from a larger study of teacher motivation and job satisfaction. These underlying factors are not directly observable or measurable by the researcher. In order to discover the underlying latent factors, the data were subjected to a factor analytic procedure.

The pilot study involved survey responses from 128 inservice teachers in the state of Ohio. The factor analytic procedure resulted in a 4-factor structure. The conceptual labels attached to the four categories of teaching incentives are *student-centered rewards, professional development incentives, school district recognition awards,* and *financial compensation*.

Method

The data for this study were collected for a larger study which investigated aspects of teacher motivation and job satisfaction. A web-based survey (see Figure 1)

was completed by a large sample (n = 969) teachers. One section of the survey asked teachers to rate ten commonly used incentives of teaching performance, as identified in the literature (Azumi & Lerman, 1987; Chapman, 1983; Cresap, McCormick, & Paget, Inc., 1984; Ellis, 1984; Freeman & Grant, 1987; Herzberg, Mausner, & Snyderman, 1959; Johnson, 1986; Lortie, 1975; Martinez-Pons, 1990; Palaich & Flannelly, 1984), as personally motivating or unmotivating. They were asked to rate the items on a scale from 1 ("highly unmotivating") to 6 ("highly motivating"). The incentive variables, including the variable names appearing in parentheses, were:

- a one-time-only monetary award, supplemental to the step increase (***MONAWARD***);
- being selected as "Teacher of the Year" in the district (***TOFY***);
- an instructional workshop offered by the district for a fee (***WORKFEE***);
- having students thank a teacher for aiding in the understanding of a difficult concept (***STTHANKS***);
- an instructional workshop offered and paid for by the district (***WORKPAID***);
- being given the opportunity to participate in teacher projects, such as research or curriculum development (***PROJECTS***);
- early retirement/contract buy-out (***RETIRE***);
- observing vast improvement in the achievement levels of one's students since the beginning of the year (***IMPROVE***);
- being awarded a plaque by students (***PLAQUE***); and

- being permitted to purchase additional equipment and supplies for the classroom (***EQUIP***).

Insert Figure 1 about here

Results

Dimensionality of the Model

Raw data resulting from the teachers' responses for the ten observed variables was used as the input for the factor analytic procedure. The factor analytic procedure was conducted using SPSS (v. 10.0). In an attempt to determine the appropriate number of dimensions of the factor model, an initial principal components analysis was used to find the underlying dimensions, or linear combination of original variables, which explained the most variance in the original variables.

The initial number of factors to be identified was determined by using a default command setting within SPSS, which instructs the computer to extract the number of factors equal to the number of variables with initial eigenvalues greater than 1.00 (Kaiser's rule).

The principal components analysis resulted in three eigenvalues greater than 1.00. This 3-factor solution accounted for 59% of the variance in the original set of variables. It is important to note that a fourth eigenvalue was equal to .89. These results suggested that a 3- or 4-factor solution would be appropriate. The factor scree plot

suggested a solution with 3, 4, or 5 factors. Finally, with respect to the adequacy of model fit, there were 32 (71%) of the reproduced correlations with residuals greater than .05.

Since the adequacy of model fit – as indicated by the number of residuals greater than .05 – suggested the need for additional factors and the scree plot suggested the possibility of 4 or 5 factors, the data were subjected to two additional factor analyses, one extracting 4 factors and the other extracting 5. Information concerning the dimensionality and adequacy of model fit for the 3-, 4-, and 5-factor solutions are summarized in Table 1. This information includes the amount of variance explained by the model, and the adequacy of fit (i.e., the number of residuals > .05) between the reproduced correlations (those logically implied by the solutions) and the observed correlations.

Insert Table 1 about here

In addition to the information provided in Table 1, it is important to note that nearly all (9 out of 10) of the variables in the 3-factor model had communalities (the proportion of variance of the original variables explained by the model) less than .70, with the ten values ranging from .43 to .71; the 4-factor model had six variables with communalities less than .70, with the ten values ranging from .60 to .79; the 5-factor model had two, all values ranging from .66 to .90.

Three of the thirty-two residuals identified in the 3-factor model as being greater than .05 were somewhat "large" (absolute values ranging from approximately .15 to .20), with one of those exceeding .20. In the 4-factor model, three of the thirty identified residuals fell into the range from .15 to .20. Finally, of the twenty-four residuals identified in the 5-factor model, only two exceeded the .15 value.

In attempting to find the most parsimonious solution, it was determined that the 4-factor solution was the most appropriate. This solution explained more than two-thirds (68%) of the variance in the model. Although there were thirty residuals larger than .05 in the 4-factor model, twenty-three of these were quite small. Finally, after rotation in the 5-factor model, it was apparent to the researcher that the addition of the fifth factor did not make a meaningful contribution to the parsimony of the solution—i.e., conceptually labeling the factors. Two of the five factors each corresponded to only one of the original variables. For these reasons, it was concluded that the 4-factor model was the most appropriate solution.

Interpretation of the Factors

The method used for factor extraction was a principal components procedure. The researcher experienced some difficulty when attempting to attach conceptual labels to the factors of the 4-factor model. In an attempt to improve the interpretation of the factors, the 4-factor model was subjected to both orthogonal (VARIMAX) and oblique (OBLIMIN) factor rotations. It was initially assumed by the researcher that the factors would be correlated due to the related aspects of the ten items. However, examination of

the factor correlations resulting from the oblique rotation revealed the majority of these correlations to be quite small, with absolute values ranging from .06 to .26. Three of the six correlations were less than .15; all six were less than .30. Therefore, the factor loadings resulting from the orthogonal factor (VARIMAX) rotation were used to provide clarity in the interpretations of factors.

The rotated factor loadings of the 4-factor model are shown in Table 2. Based on these factor loadings, conceptual labels were attached to the factors. The variables which loaded on Factor 1—***IMPROVE*** (.843), ***STTHANKS*** (.813), ***PLAQUE*** (.634), and ***EQUIP*** (.557)—deal with student-teacher interactions, resulting predominantly in intrinsic types of rewards within a classroom setting. The lone exception is being awarded a plaque, although this a student-centered form of recognition. Respectively, these incentives address improvement in academic performance, student appreciation for a teacher's assistance, formal student recognition of a teacher's performance, and additional classroom equipment and supplies. It is therefore hypothesized that one factor affecting teachers' ratings of these incentive variables is that of ***student-centered rewards***.

Insert Table 2 about here

The variables which loaded primarily on Factor 2—***WORKPAID*** (.784), ***WORKFEE*** (.727), and ***PROJECTS*** (.671)—deal with inservice training or other opportunities for professional development. It is therefore hypothesized that a second

factor affecting teachers' ratings of these incentive variables is that of ***professional development incentives***.

The variables which loaded primarily on Factor 3—***TOFY*** (.762) and ***MONAWARD*** (.674)—deal with concrete, extrinsic rewards. Specifically, these included a "title" which would bring some degree of notoriety within the school or community-at-large and a cash award. Since these two incentives involve recognition at the district level, it is hypothesized that a third factor affecting teachers' ratings of these incentive variables is that of ***school district recognition awards***.

Finally, the only variable which loaded on Factor 4—***RETIRE*** (.889)—dealt with financial compensation beyond teachers' salaries. Early retirement could be considered a cash award, although it is quite different from the previous factor, since it results in the end of a teaching career. It is therefore hypothesized that a fourth factor affecting teachers' ratings of these incentive variables is that of ***early retirement***.

As was the case in the original pilot study, there is some concern on the part of the researcher that the variable ***RETIRE*** may not be consistent with the other nine incentive variables included in this study, at least as they were viewed by the responding teachers. The rotated loadings on the other three factors were extremely small—.040, .013, and .002—indicating that there is little variance that this variable shares with any of the others. However, ***RETIRE*** did have a very high loading (.889) on its factor and the proportion of variability in the variable explained by the final model was quite substantial (.79). This may indicate that teachers do view early retirement as some sort of professional incentive, albeit a unique one.

Discussion

There exists no "absolute" classification scheme for the purposes of categorizing teaching performance incentives. Commonly employed dichotomous (and in some cases "*tri*chotomous") schemes have been utilized in an attempt to facilitate discussion as well as debate of this particular topic. However, for the most part, these have not been derived from an empirical base. These previously existing schemes were likely derived as a result of a *logical*—and perhaps somewhat subjective—approach to the classification of incentives.

In the original pilot study, a case was made for a fundamental problem in these logically-deduced classification schemes. This problem centers around the subtleties aroused when the terms "intrinsic" and "extrinsic" are used to describe performance incentives. Intrinsic rewards are seen as being inherently "good"; in other words, they are rewards experienced by individuals as a result of having performed a task successfully. The reward itself is an internalized feeling of success and self-worth. Teachers often cite this notion as being the primary motivating factor for their initial entry into the teaching profession. In contrast, extrinsic rewards are inherently "bad"[1]; that is, they are tangible incentives, in that they can be touched, can be seen, and in many cases can be spent! Placing value on extrinsic rewards seems to imply that an individual is performing the work of a teacher for the "wrong" reasons—those in the form of some type of monetary gain.

[1] For lack of a better term, "bad" is used simply to establish the bipolar nature of the classification scheme (intrinsic → good; extrinsic → bad). By no means does the researcher mean to imply that those who are motivated by extrinsic rewards are "bad."

Similar to the pilot study, the classification scheme resulting from this study serves as an alternative to the previously discussed schema. This alternative classification system is important for two essential reasons. First of all, and quite importantly, it is empirically-based, resulting from the ratings provided by nearly 1,000 K-12 teachers. This provides a distinct advantage over the logically-based classification schemes which have historically been utilized. Secondly, it provides an alternative structure to the "intrinsic—extrinsic," "good—bad" schemes of the past. That is not meant to imply that some qualitative adjectives could not be applied to the resulting 4-category scheme (i.e., student-centered rewards, professional development incentives, school district recognition awards, and financial compensation), because that could certainly be done. However, the alternative classification scheme avoids the simple "either—or" dichotomy of the previous system and therefore provides options to teachers, administrators, and school districts, as well as researchers.

At the risk of reiterating the significance of the results of the original pilot study, the results of this study have important implications for educators as well as researchers. The resultant classification system of incentives provides one option to administrators and teachers in terms of developing or refining a system of performance incentives. This system may provide teachers with what they might see as greater opportunities for rewards related to their teaching performance. Additionally, this classification system provides researchers with an alternate means of analyzing and discussing teaching performance incentive systems. Since the 4-factor model has been "validated" with a substantially larger sample as a result of this study, it is recommended that further

research be conducted on this classification system in order to establish the perceived effectiveness of this new classification system for inservice teachers and administrators.

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Figure 1

The *Teacher Motivation and Job Satisfaction* Web-Based Survey

Welcome...and thank you for taking a few minutes to complete...

The Teacher Motivation and Job Satisfaction Survey

DIRECTIONS: For each item, please indicate your response by clicking on the appropriate button. When you have finished, click on the ***SUBMIT*** button at the bottom of the page to send your responses.

QUESTION NO.	QUESTION	VERY DISSATISFIED	SOMEWHAT DISSATISFIED	SOMEWHAT SATISFIED	VERY SATISFIED
1.	What is your overall level of satisfaction with your job as a teacher?	1 ○	2 ○	3 ○	4 ○

http://personal.bgsu.edu/~mertler/TMJS-Survey/TMJS.html

QUESTION NO.	QUESTION	YES	NO
2.	If you had the opportunity to start over in a new career, would you choose to become a teacher?	1 ○	2 ○

QUESTION NO.	QUESTION	YES	NO
3.	Generally speaking, do you believe that the teachers with whom you work are motivated?	1 ○	2 ○

QUESTION NO.	QUESTION	1-2	3-4	5-6	7-8	9-10	More than 10
4.	How many teachers that you know or work with would you classify as unmotivated?	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○

5. On the following 6-point scale, indicate the degree to which each of the following serve as a motivating factor or an unmotivating factor for teachers.

QUESTION NO.	QUESTION	HIGHLY UNMOTIVATING	.....	.....	.....	.....	HIGHLY MOTIVATING
5a.	recognition (e.g., receiving praise from administrators, parents, students, or others)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5b.	potential for professional growth (e.g., possibility of improving one's own professional skills)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5c.	supervision by superiors (e.g., overall competence of superiors)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5d.	interpersonal relationships with colleagues (e.g., interaction with other teachers)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5e.	salary (e.g., financial compensation)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5f.	job security (e.g., tenure)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5g.	status (e.g., professional status of teaching)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5h.	interpersonal relationships with administrators (e.g., interaction with administrators)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5i.	sense of achievement (e.g., experiencing success)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5j.	working conditions (e.g., building conditions, amount of work, facilities available)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5k.	district policies (e.g., overall effects of the district as an organization)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5l.	teacher evaluation (e.g., appraisal of classroom instruction by evaluator)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○

5m.	responsibility (e.g., autonomy, authority and responsibility for own work)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5n.	potential for advancement (e.g., possibility of assuming different positions in the profession)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5o.	work itself (e.g., aspects associated with the tasks of teaching)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5p.	factors in personal life (e.g., effects of teaching on one's personal life)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5q.	interpersonal relationships with students (e.g., interaction with students)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
5r.	sense of accountability (e.g., being held directly responsible for student learning)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○

6. On the following 6-point scale, indicate the degree to which each of the following items serve as a motivating factor or an unmotivating factor for teachers.

QUESTION NO.	QUESTION	HIGHLY UNMOTIVATING	.....	.....	.....	.....	HIGHLY MOTIVATING
6a.	a one-time monetary award (supplemental to the step increase)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6b.	being selected as "Teacher of the Year" in the district	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6c.	an instructional workshop offered by the district for a fee	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6d.	having students thank a teacher for aiding in the understanding of a difficult concept	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6e.	an instructional workshop offered and paid for by the district	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6f.	being given the opportunity to participate in teacher projects (e.g., research, curriculum development)	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6g.	early retirement/contract buy-out	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6h.	observing vast improvement in the achievement levels of one's students since the beginning of the year	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6i.	being awarded a plaque by students	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○
6j.	being permitted to purchase additional equipment and supplies for the classroom	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○

QUESTION NO.	QUESTION	FEMALE	MALE
7.	What is your gender?	1 ○	2 ○

QUESTION NO.	QUESTION	AFRICAN AMERICAN	ASIAN AMERICAN	CAUCASIAN	HISPANIC AMERICAN	OTHER
8.	What is your ethnicity?	1 ○	2 ○	3 ○	4 ○	5 ○

QUESTION NO.	QUESTION	21-25 YEARS	26-30 YEARS	31-35 YEARS	36-40 YEARS	41-45 YEARS	46-50 YEARS	51-55 YEARS	56 YEARS OR OLDER
9.	What is your age?	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○	7 ○	8 ○

QUESTION NO.	QUESTION	1-5 YEARS	6-10 YEARS	11-15 YEARS	16-20 YEARS	21-25 YEARS	26-30 YEARS	31-35 YEARS	36 YEARS OR MORE
10.	Including the current school year, how many years of teaching experience do you have?	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○	7 ○	8 ○

QUESTION NO.	QUESTION	URBAN	SUBURBAN	RURAL
11.	Which best describes your current school setting?	1 ○	2 ○	3 ○

QUESTION NO.	QUESTION	ELEMENTARY SCHOOL	MIDDLE/JUNIOR HIGH SCHOOL	HIGH SCHOOL
12.	Which best describes your current school level?	1 ○	2 ○	3 ○

Submit Survey

Thank you for participating in this research study.

If you have questions or comments about this survey, please feel free to contact me...

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Table 1

Summary of Model Dimensionality and Adequacy of Model Fit for 3-, 4-, and 5-Factor Solutions

Number of Factors	Percent of Variance Explained	Number of Residuals > .05
3	59%	32 (71%)
4	68%	30 (66%)
5	75%	24 (53%)

Table 2

Rotated factor loadings for the 4-factor model

	Factors			
Variable	F_1	F_2	F_3	F_4
IMPROVE	.843	.102	.006	.064
STTHANKS	.813	.113	.127	-.006
PLAQUE	.634	.029	.499	-.042
EQUIP	.557	.362	.115	.409
WORKPAID	.259	.784	.033	.198
WORKFEE	-.192	.727	.287	-.031
PROJECTS	.366	.671	.090	-.092
TOFY	.163	.307	.762	-.078
MONAWARD	.079	.050	.674	.463
RETIRE	.013	.002	.040	.889

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